

# American WITBIER

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- Gravity **11.7 BLG**
- ABV ---
- IBU **24**
- SRM **4.2**
- Style **Witbier**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.3 liter(s)**
- Total mash volume **20.4 liter(s)**

## Steps

- Temp **52 C**, Time **20 min**
- Temp **63 C**, Time **60 min**
- Temp **72 C**, Time **25 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **15.3 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **20 min** at **52C**
- Keep mash **60 min** at **63C**
- Keep mash **25 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **17.6 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3 kg (58.8%)	80 %	3.5
Grain	Strzegom Pszeniczny	0.7 kg (13.7%)	81 %	6
Grain	Pszenica niesłodowana	1 kg (19.6%)	75 %	3
Grain	słód owsiany	0.4 kg (7.8%)	79 %	7

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Cascade	15 g	60 min	7.7 %
Boil	Cascade	13 g	10 min	7.7 %
Boil	Citra	13 g	10 min	13.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M21	Wheat	Dry	10 g	Mangrove Jack's

## Extras

Type	Name	Amount	Use for	Time
Spice	Kolendra	20 g	Boil	10 min
Spice	Curacao	15 g	Boil	10 min
Spice	skórki słodkiej pomarańczy	15 g	Boil	10 min
Spice	skórki pomarańczy bergamotki	15 g	Boil	10 min